

found on lines 21-23 on page 3, lines 1-8 on page 4, lines 21-23 on page 5 and lines 1-12 on page 6 of the specification and in Fig. 1. Accordingly, no new matter has been added.

CLAIMS

Claim Rejections - 35 U.S.C. § 112

The Examiner rejected claims 2-6 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. The grounds for rejection are set forth below, each of which is respectfully traversed in view of the foregoing amendment

Specifically, the Examiner argues that claims 2-6 are confusing because they recite a motor assembly that does not include a motor. Applicants have amended claims 2-4 to recite, "a drive assembly" in place of the phrase, "a motor assembly." Applicants submit that a drive assembly accurately describes the structure previously referred to as a motor assembly. By amending claims 2-4, claims 5 and 6 no longer recite a "motor assembly."

Further, the Examiner rejected claim 5 because claim 5 states that the output shaft of the speed-reducer constitutes the sheave, which is inaccurate in the Examiner's opinion. Applicants have amended claim 5 to recite, "an output wheel of said speed-reducer constitutes said sheave." Applicants submit that the sheave is an output wheel of the speed-reducer. Support for the above amendment can be found on lines 11-17 on page 9 of the specification.

Based upon the foregoing, Applicants submit that amended claims 2-5 as well as original claim 6 are in full compliance with 35 U.S.C. § 112, second paragraph. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw any rejection of claims 2-6 based upon 35 U.S.C. § 112.

Claim Rejections - 35 U.S.C. § 102

The Examiner rejected claims 1-6 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,526,252 (Hirano). Applicants respectfully traverse this rejection.

Hirano is directed to an elevator hoist unit installed within a machine room disposed in the vicinity of a hoistway for moving an elevator car along the hoistway. Referring

to Fig. 4, the elevator hoist unit 60 of Hirano includes a speed reduction gear unit 62 having an input shaft 64, an output shaft 66 and a third auxiliary rotating shaft 68. The input shaft 64 includes a spur gear 84 and a pinion gear 80. The pinion gear 80 meshes with a second spur gear 82 on the output shaft 66 to reduce the speed of a drive sheave 36. The spur gear 84 meshes with a smaller-diameter pinion gear 86 secured to the auxiliary shaft 68 to increase the rotational speed of the auxiliary shaft 68. Referring to Fig. 2, the elevator hoist unit 60 of Hirano is disposed within a machinery chamber 16 that is generally constructed as a penthouse of a building (column 1, lines 16-21). The machinery chamber 16 of Hirano is also described as, "a small machine chamber 16" (column 2, line 6) and "a narrow machine room" (column 3, line 60 and column 4, line 1), each of which is integral with the building or is a room of the building as shown in Figs. 1 and 2. The machine chamber 16 is a space that is fixed relative to the building and is generally positioned at the top of a hoistway of the building to drive an elevator car 40 and counterweight 44 up and down within the hoistway. Referring to Fig. 1, a motor 10, electromagnetic brake 26 and speed reducer 32 of Hirano are mounted on a machine bed 12 where the brake 26, speed reducer 32 and at least half of the motor 10 are positioned on one side of the machine bed 12.

The present invention is directed to an elevator apparatus including a case body 54 that is readily detachable from a rooftop 50 of a building to provide access to an actuating device 1 (see lines 11-16, page 7). Referring to Fig. 2, the actuating device 1 and drive sheave 27 of the present invention are installed on the rooftop 50 of the building within the case body 54. The case body 54 is a shielding body that protects the actuating device 1 and drive sheave 27 from bad weather and direct sunlight (see lines 7-9, page 7). The case body 54 is relatively small and generally has a height less than that of an operator S. The case body 54 can be readily detached from the rooftop 50 to expose the actuating device 1 for maintenance work.

Claim 1 recites, *inter alia*, a shielding body for shielding said actuating device, wherein said actuating device and said shielding body are installed on a rooftop of a building in which said ascending and descending cage is disposed, said shielding body being readily detachable from said rooftop.

Applicants submit that Hirano does not anticipate claim 1 under 35 U.S.C. § 102(b). There is no teaching, suggestion or disclosure in Hirano of a shielding body that is readily

detachable from the rooftop of the building. Hirano teaches an elevator hoist unit that is disposed within a machinery chamber which is integral or fixed to an upper floor of a building (See Figs. 1 and 2). Accordingly, the machinery chamber or shielding device of Hirano is fixed relative to the building and may not be removed from a building rooftop to perform maintenance. Therefore, Hirano does not teach, suggest or disclose each and every element of claim 1 of the present invention.

Since Hirano does not teach, suggest or disclose each and every element of claim 1, Applicants respectfully submit that claim 1 is not anticipated by Hirano. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw any rejection of claim 1 based upon anticipation by Hirano.

Claims 2-6 and new claim 7 are dependent upon claim 1 and are, therefore, also considered patentable over Hirano for the above-discussed reasons. Further, Hirano does not disclose the coaxial arrangement of claim 3, the single input shaft feature of claim 7 nor the output wheel/sheave of claim 5. In addition, Hirano does not disclose the arrangement of claim 2 including the drive assembly and brake assembly mounted on a second side of the support member and the speed reducer mounted on a first side of the support member. Hirano discloses a speed reducer, brake and at least half of the motor mounted on a single side of the machine bed/support member. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw any rejection of claims 2-6 based upon anticipation by Hirano.

INFORMATION DISCLOSURE STATEMENT

The Applicants would like to point out that an Information Disclosure Statement was filed with the application. An initialed PTO-1449 form was not received with the Office Action. It is requested that the Examiner consider the cited reference and send an initialed PTO-1449 form with the next Office Action.

CONCLUSION

In view of the foregoing amendment and remarks, Applicants respectfully submit that the present application including claims 1-7 is in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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Enclosure

MARKED-UP VERSION OF THE CLAIMS

The following is a marked-up version of the claims wherein underlining indicates additions and bracketing indicates deletions.

1. (Amended) An elevator apparatus comprising:

an actuating device including a sheave around which a rope engaged with an ascending and descending cage is wound, said sheave being adapted to rotate thereby to move said rope with its rotation, and a driving section for rotating said sheave, and

a shielding body for shielding said actuating device,

wherein said actuating device and said shielding body are installed on a rooftop of a building in which said ascending and descending cage is disposed, said shielding body being readily detachable from said rooftop.

2. (Amended) The elevator apparatus according to claim 1, wherein said actuating device includes a support member, a speed-reducer mounted on a first side of said support member, a [motor]drive assembly mounted on a second side of said support member, and a brake assembly supported on said second side of said support member, said second side being opposite from said first side.

3. (Amended) The elevator apparatus according to claim 2, wherein said speed-reducer, said [motor]drive assembly and said brake assembly are arranged coaxially to one another.

4. (Amended) The elevator apparatus according to claim 2, wherein said brake assembly is arranged radially inwardly of said [motor]drive assembly.

5. (Amended) The elevator apparatus according to claim 2, wherein an output [shaft]wheel of said speed-reducer constitutes said sheave.